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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/571,403	11/13/2006	Luigi Resconi	FE 6128 (US)	6685

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EXAMINER	
ENG, ELIZABETH	

ART UNIT	PAPER NUMBER
4151	

MAIL DATE	DELIVERY MODE
05/27/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/571,403	RESCONI ET AL.	
	Examiner	Art Unit	
	ELIZABETH ENG	4151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-26,28-30,32,34 and 37-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-26,28-30,32,34 and 37-44* is/are rejected.

7)☒ Claim(s) *26,28, 29, 42* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/11/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the metallocene compound wherein the first species comprises formula (IIa) on both cyclopentadiene rings, the second species comprises formula (IIb) on both cyclopentadiene rings, and the third species comprises formula (IIa) on one cyclopentadiene ring and (IIb) on the other. The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 23 is generic.

There is an examination and search burden for these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing**

the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

2. During a telephone conversation with attorney Jarrod Raphael on the day a provisional election was made with traverse to prosecute the invention of species 1,

claims 23-26, 28-30, 32, 34, and 37- 44. Affirmation of this election must be made by applicant in replying to this office action. Claims 27, 33, 35, and 36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

1. Claims 26, 28, 29, and 42 are objected to because of the following informalities: Regarding claim 26, -- the group consisting of is $Si(CH_3)_2$-- should be -- the group consisting of $Si(CH_3)_2$--. Regarding claims 28 and 29, --R^5 and $R^{5'}$—should read –R^5 or $R^{5'}$--. Regarding claim 42, --CH^2=CHT^1 -- should be –CH_2=CHT^1--. Appropriate correction is required.

Specification Objections

2. The disclosure is objected to because of the following informalities: --$R^{1 \text{ and } R2}$ -- should be – R^1 and R^2— [Abstract, line 6], and –ore—should be –or-- [0095, line 2]. Appropriate correction is required.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant claims a multistage process, however, the claim only discloses gas polymerizing polyethylene in the presence of a polypropylene resin, which comprises only one stage.

35 USC 103 Rejection

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

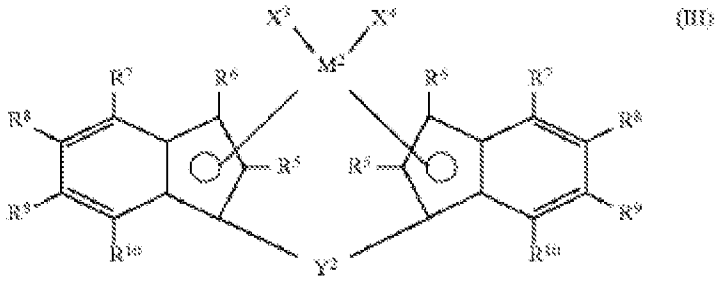
under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 23-26, 28, 29, 32, 34, and 37-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (US Pat. No. 5,854,354) further in view of Moriya et al. (Pat No. JP02000109624).

9. Regarding claim 23, Ueda et al. teaches a multistage process [column 1, 66] comprising the following steps:

polymerizing a propylene resin optionally comprising one or more monomers selected from ethylene and alpha olefins of formula $CH2=CHT^{l}$, wherein T^{l} is a C2-C20 alkyl radical [column 2, lines 16-19] in presence of a catalyst system [column 1, line 67, column 2, lines 1-2], the catalyst system supported on an inert carrier comprising:

i) a metallocene compound of formula (III)



Wherein:

M2 is a transition metal atom of group IV to Group VIB of the periodic table [column 3, line 25], which is within the claimed groups of 3 to 6 in the periodic table;

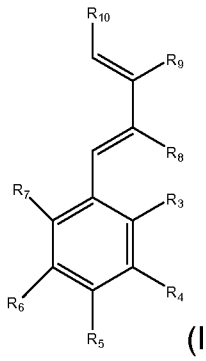
p is 2 [X^3, X^3, figure III], wherein p is equal to a formal oxidation state of M minus 2, wherein M is Si, Ti, and Hf [column 4, lines 27-28], which have the oxidation numbers of 4.

X^3 and X^4 are each a hydrogen, a halogen, a hydrocarbon group of 1 to 20 carbon atoms, a halogenated hydrocarbon group of 1 to 20 carbon atoms, and oxygen-containing group or a sulfur-containing group [column 3, lines 37-40].

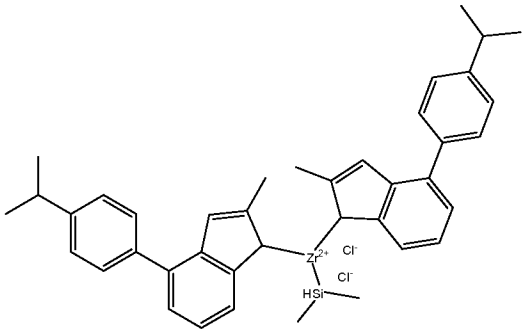
Y^2, or L in the instant invention, is a divalent hydrocarbon group of 1 to 20 carbon atoms, a divalent halogenated hydrocarbon group of 1 to 20 carbon atoms, a divalent silicon-containing group or a divalent germanium-containing group [column 3, lines 33-36].

R^5 and R^6, or R^1 and R^2 in the instant invention, are equal to or different from each other, are saturated or unsaturated C1-C20-alkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements [column 3, lines 26-31];

T is a moiety of formula (IIa) below. Ueda et al. teaches rac-dimethylsilyl Bis{1-(2-methyl-4-(p-i-propylphenyl) indenyl)} zirconium dichloride [column 9, line 1] as shown below, wherein the phenylindenyl reads on the claim of T having the structural moiety (IIa) as part of the metallocene. The structure also reads on the claim of R^3, R^4, R^5, R^6, R^7, R^8, R^9, and R^{10} are hydrogens, with the proviso that R^5 is a branched alkyl radical, as seen by the isopropyl group.



(IIa)



dimethylsilyl bis(2-methyl-4-(p-i-propylphenyl) indenyl) zirconium dichloride

(ii) an aluminoxane [column 7, line 23] or a compound capable of forming an alkyl metallocene cation [column 8, lines 1-10].

-contacting under polymerization conditions in a gas phase [column 20, line 5], ethylene with 1-butene [column 19, line 65] to produce an ethylene resin, the ethylene resin is produced in the presence of the propylene resin [column 21, lines 1-2],

10. Ueda et al. teaches 20 to 90% by weight of propylene copolymer, and 10 to 80% by weight of ethylene copolymer [column 30, claim 1, lines 33-35]. Ueda et al. does not teach the ethylene resin is higher than 80% by weight and lower than 96% by weight. However, in the same field of endeavor of forming a propylene/ethylene resin with a metallocene catalyst, Moriya et al. teaches the amount of the propylene resin (A) is 10-70 parts by weight, and the amount of the ethylene resin (B) is 30-90 parts by weight [Solution, lines 1 and 5], wherein the ranges read on the claimed range of propylene resin higher than 4% and lower than 20% by weight, and the ethylene resin is higher than 80% by weight and lower than 96% by weight, for the benefit of excellent rigidity heat resistance, and impact resistance.

11. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the metallocene and polymerization method of Ueda et

al. with the resin amounts of Moriya et al. for the benefit of excellent rigidity heat resistance, and impact resistance.

12. Regarding claim 24, Ueda et al. teaches the catalyst system further comprises iii) an organo aluminum compound [column 3, line 44].

13. Regarding claim 25, Ueda et al. teaches the process of polymerizing a propylene resin is carried out in the presence of an additional organo aluminum compound, wherein the propylene is polymerized with a catalyst system comprising organoaluminum which can be used singly or in combination [column 21, line 48].

14. Regarding claim 26, Ueda et al. teaches M is titanium, zirconium, or hafnium [column 4, lines 27-28]; p is 2 [X^3, X^3, column 3, figure III]; X^3 and X^4, or X in the instant invention, are each a hydrogen, a halogen, a hydrocarbon group of 1 to 20 carbon atoms, a halogenated hydrocarbon group of 1 to 20 carbon atoms, and oxygen-containing group or a sulfur-containing group [column 3, lines 37-40]; Y^2, or L in the instant invention, is a divalent hydrocarbon group of 1-20 carbon atoms, and a divalent silicaon-sontaining group [column 3, lines 33-36], which reads on the claimed group of $Si(CH_3)_2$, $SiPh_2$, SiPhMe, $SiMe(SiMe_3)$, CH_2, $(CH_2)_2$, $(CH_2)_3$, and $C(CH_3)_2$; and R^5, or R^1 and R^2 in the instant invention, is an ethyl or methyl radical [R^5, hydrocarbon group of 1-20 carbons, column 3, lines 26-28].

15. Regarding claim 28, Ueda et al. teaches R^5 is an isopropyl group in the example of rac-dimethylsilyl Bis{1-(2-methyl-4-(p-i-propylphenyl) indenyl)} zirconium dichloride [0029, line 23], wherein the isopropyl group reads on the claim of R^5 being an alkyl group.

16. Regarding claim 29, Ueda et al. teaches R^5 is a branched alkyl radical in the example of rac-dimethylsilyl Bis{1-(2-methyl-4-(p-i-propylphenyl) indenyl)} zirconium dichloride [0029, line 23], wherein the branched radical is the isopropyl group.

17. Regarding claim 32, Ueda et al. teaches T having the formula (IIa), wherein Y^7 as an aryl group [column 3, line 32] reads on the formula (IIa), and R^8, or R^9 in the instant invention, can be a hydrocarbon group of 1 to 20 carbon atoms [column 3, lines 27-28], which read on the claim of R^9 being a C_1-C_{20} alkyl radical.

18. Regarding claim 34, Ueda et al. teaches T having the formula (IIa), wherein Y^7 as an aryl group [column 3, line 32] reads on the formula (IIa), and R^8, or R^9 in the instant invention, can be hydrogen [column 3, line 27].

19. Regarding claim 37, Ueda et al. teaches the inert carrier is a porous organic polymer [column 15, line 11].

20. Regarding claim 38, Ueda et al. teaches the process of polymerizing propylene resin further comprises a prepolymerization step [column 26, line 41].

21. Regarding claim 39, Ueda et al. teaches the process according to claim 38 wherein the catalyst system is prepolymerized [column 17, line 35].

22. Regarding claim 40, Ueda et al. teaches the process according to claim 23, wherein the process is carried out in the presence of hydrogen [column 26, lines 49 and 60].

23. Regarding claim 41, Ueda et al. teaches the propylene resin produced comprises from 20% to 90% by weight [column 30, claim 1, line 33] of propylene homopolymer [column 19, line 35] or a propylene copolymer containing propylene in amounts of not

less than 80 mol% [column 19, line 33], wherein propylene is copolymerized with ethylene and olefins of 4 to 20 carbon atoms [column 18, lines 32-33], which reads on the claim of a propylene copolymer containing up to 20% by mol of ethylene or one or more alpha olefins of formula CH_2=CHT[1]. Ueda et al. does not teach 10 to 18% by weight of propylene homopolymer or copolymer. However, Moriya et al. teaches 10 to 70 parts by weight of propylene/ethylene copolymer [Solution, line 1], wherein the range encompasses the claimed range of 10 to 18% by weight, for the benefit of excellent impact resistance.

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the metallocene and polymerization method of Ueda et al. with the propylene amount of Moriya et al. for the benefit of excellent impact resistance.

25. Regarding claim 42, Ueda et al. teaches the ethylene resin produced comprises from 10 to 80% by weight [column 30, claim 1, line 35] of an ethylene copolymer that is 55 to 90 mol% ethylene [column 20, line 47], wherein the ethylene is copolymerized with at least one olefin of 4 to 20 carbons, such as 1-butene [column 19, lines 58-59, line 66]. Ueda et al. does not teach the ethylene resin is 82 to 90% by weight. However, Moriya et al. teaches the ethylene resin produced is 30-90 parts by weight [Solution, line 5], wherein the range encompasses the claimed range of 82% to 90% by weight [0063, line 3], for the benefit of excellent impact resistance.

26. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the metallocene and polymerization method of Ueda et

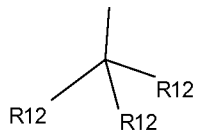
al. with the ethylene amount of Moriya et al. for the benefit of excellent impact resistance.

27. Regarding claim 43, Ueda et al. teaches the propylene resin is a propylene homopolymer [column 19, line 35].

28. Regarding claim 44, Ueda et al. teaches the ethylene resin is an ethylene 1-butene copolymer containing constituent units derived from ethylene in amounts of 55 to 90% by mol [column 21, lines 52-53].

29. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. in view of Moriya et al., as applied to claims 23, 28, and 29 above, further in view of Schottek et al (PGPUB 2003/0149199).

30. Regarding claim 30, Ueda et al. and Moriya et al. do not teach a metallocene catalyst having wherein R5 has the structure of formula (III) below. However, in the same field of endeavor of polymerizing olefins with a metallocene catalyst, Schottek et al. teaches dimethylsilanediyl(2-methyl-4-(4'-tert-butylphenyl)indenyl(2-isopropyl-4-(4'tert-butylphenyl)indenyl)zirconium dichloride, wherein the structure satisfies the claim of R^5 having the formula (III) and R^{12} are equal to each other and have a C_3 alkyl radical [0285], for the benefit of preventing deposit formation of polymers in a reactor.



(III)

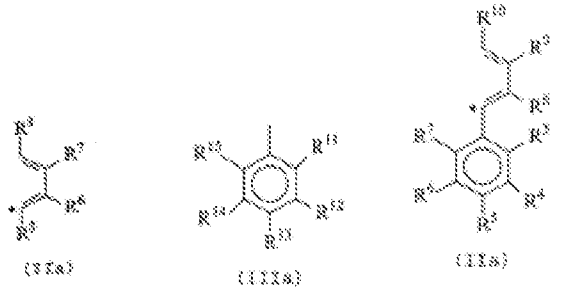
Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

31. Claims 23-26, 28-30, 32, 34, and 37- 44 are directed to an invention not patentably distinct from claim 20-22, 24, 25, 27-29, 32-38 of commonly assigned Application No. **10/571,382**. Specifically, the metallocene of 10/571,382 is the same as that of 10/571,403, wherein both applications claim the same M, p, X, L, R1, and R2 components on a cyclopentadienyl metallocene. The copending application defines T as a moiety of (IIa) shown below, wherein R5 is of the structure (IIIa). The combination of (IIa) and (IIIa) gives the structure (IIa), the third structure below, which is the same metallocene compound of the instant invention:



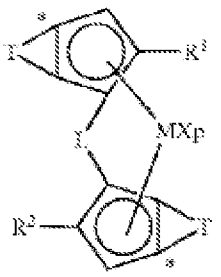
32. Furthermore both applications teach the same polymerization process of polymerizing propylene resin in the presence of a metallocene catalyst system, which comprises alumoxane and an organo aluminum compound, and producing a polyethylene resin in the presence of the polypropylene resin in the presence of hydrogen.

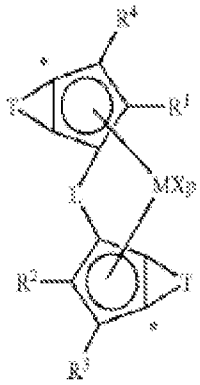
33. Copending application 10/571,382 differs from the instant invention in claiming a weight ratio of hydrogen/ethylene and, different amounts of propylene and ethylene. However, the instant invention claims the use of hydrogen gas throughout its process [claim 40]. Furthermore, the amounts of propylene and ethylene claimed in claim 20 of 10/571,382 encompass the propylene and ethylene amounts as claimed in claim 23 of 10/571,403. Such differences do not make one application patentably distinct from the other.

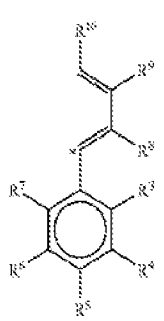
34. Claim 23-26, 28-30, 32, 34, and 37- 44 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 20-22, 24, 25, 27-29, 32-38 of copending Application No. 10/571,382. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to substantially the same process using the same catalyst system. While the copending application limits the amount of hydrogen

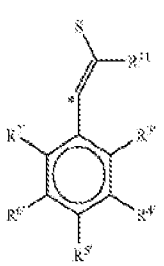
preferred the instant application broadly sets forth that the amount of hydrogen used would have been obvious to include more or less depending on the desired properties achieved.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Application 10/571403	Copending Application 10/571,382
23. A multistage process comprising the following steps: - polymerizing a propylene resin optionally comprising one or more monomers selected from ethylene and alpha olefins of formula CH2=CHT^{l,} wherein T^{l} is a C2-C20 alkyl radical in presence of a catalyst system, the catalyst system supported on an inert carrier comprising: i) at least one metallocene compound of formula (I) :  (I) wherein: M is a transition metal selected from those belonging to group 3, 4, 5, 6 or to a lanthanide or actinide group in the Periodic Table of the Elements; p is an integer from 0 to 3, wherein p is equal to a formal oxidation state of M	20. A multistage process comprising the following steps: a) polymerizing a propylene resin optionally comprising one or more monomers selected from ethylene and alpha olefins of formula CH,=CHT1, wherein T1 is a C2-C20 alkyl radical, in presence of a catalyst system, the catalyst system supported on an inert carrier comprising: (i) a transition metal compound containing a ligand having a cyclopentadienyl skeleton; and (ii) an alumoxane or a compound capable of forming an alkyl metallocene cation; b) contacting under polymerization conditions in a gas phase, ethylene with one or more alpha olefins of formula CH2=CHT1, wherein T1 is a C2-C20 alkyl radical, and optionally a non-conjugated diene, to produce an ethylene resin in presence of the propylene resin and hydrogen, wherein the weight ratio of hydrogen/ethylene being higher than 1 ppm, and the amount of the propylene resin ranges from 5% by weight to 90% by weight, and the amount of the ethylene resin ranges from 10% by

minus 2; X, same or different, is hydrogen, a halogen, or R, OR, OSO2CF3, OCOR, SR, NR2 or PR2, wherein R is a linear or branched, saturated or unsaturated Cl-C20 alkyl, C3-C20 cycloalkyl, C6-C20 aryl, C7-C20 alkylaryl or C7-C20 arylalkyl radical, containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two X can optionally form a substituted or unsubstituted butadienyl radical or OR'O wherein R° is a divalent radical selected from C1-C2o alkylidene, C6-C4o arylidene, C7-C40 alkylarylidene and C7-C40 arylalkylidene radicals; L is a divalent bridging group selected from C1-C20 alkylidene, C3-C20 cycloalkylidene, C6-C20 arylidene, C7-C20 alkylarylidene, or C7-C20 arylalkylidene radicals optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements, and silylidene radical containing up to 5 silicon atoms; RI and R2, equal to or different from each other, are linear or branched, saturated or unsaturated C1-C20-alkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; T, equal to or different from each other, is a moiety of formula (IIa) or (IIb):	weight to 95% by weight. 21. The process according to claim 20, wherein the catalyst system further comprises iii) an organo aluminum compound. 22. The process according to claim 21, wherein the ethylene resin is produced in presence of an additional organo aluminum compound. 24. The process according to claim 20, wherein the transition metal compound comprises a ligand having a cyclopentadienyl skeleton of formula (I):  wherein M is a transition metal selected from those belonging to group 3, 4, 5, 6 or to a lanthanide or actinide group in the Periodic Table of the Elements; p is an integer from 0 to 3, wherein p is equal to a formal oxidation state of M minus 2; X, equal to or different, is hydrogen, a halogen, or R, OR, OS02CF3, OCOR, SR, NR2 or PR,, wherein R is a linear or branched, saturated or unsaturated Cl-C20, alkyl, C3-C20 cycloalkyl, C6-C20 aryl, C7-C20 alkylaryl or C7-C20 arylalkyl radical, optionally containing heteroatoms





optionally wherein the atom marked with symbol * bonds the atom marked with the same symbol in the metallocene compound of formula (I);

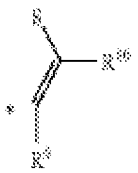
R^3, R^4, R^5, R^6 and R^7, equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C40-alkyl, C3-40-cycloalkyl, C6-C40-aryl, C7-C40-alkylarl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^3, R^4, R^5, R^6 and R^7 can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1-C20 alkyl substituent;

with the proviso that at least one substituent selected from the group consisting of R^3, R^4, R^5, R^6 and R^7 is a linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, belonging to groups 13-17 of the Periodic Table of the Elements; or two X can optionally form a substituted or unsubstituted butadienyl radical or OR'O, wherein R' is a divalent radical selected from C1-C20 alkylidene, C6-C40 arljlidene, C7-C40 alkylarylidene and C7-C40 arylalkylidene radicals;

L is a divalent bridging group selected from C1-C20 alkylidene, C3-C20 cycloalkylidene, C6-C20 arylidene, C7-C20 alkylarylidene, or C7-C20 arylalkylidene radicals optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements, and silylidene radicals containing up to 5 silicon atoms;

R1, R2, R3 and R4, equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C20 alkyl, C3-C20 cycloalkyl, C6-C20 aryl, C7-C40 alkylaryl, or C7-C40 arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements;

T, equal to or different from each other, is a moiety of formula (IIa) or (IIb):



C7-C40-alkylaryl, or C7-C40-arylalkyl radical optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements;

$R^{8,}$ R^{9} and $R^{I0,}$ equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more $R^{8,}$ R^{9} and R^{I0} can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one CI-CI0 alkyl substituent;

R^{11} is hydrogen or a linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements;

$R^{3',}$ $R^{4',}$ $R^{5',}$ $R^{6'}$ and $R^{7'}$ equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more $R^{3'}$ $R^{4'}$ $R^{5'}$ $R^{6'}$ and $R^{7'}$ can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1-C10 alkyl substituent;

ii) an alumoxane or a compound capable of forming an alkyl metallocene cation;

- contacting under polymerization conditions in a gas phase, ethylene with one or more alpha olefins of formula

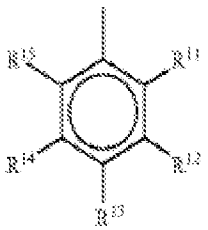
wherein the atom marked with symbol * bonds to the atom marked with the same symbol in the transition metal compound of formula (I);

R5, R6, R7, R8, R9 and R10, equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C40,-alkyl, C3-C40 cycloalkyl, C6-C40 aryl, C7-40 alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R3, R4, R5, R6 and R7 can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1-C20 alkyl substituent.

25. The process according to claim 24, wherein M is titanium, zirconium or hafnium; p is 2; X is hydrogen, a halogen, or R, wherein R is defined as in claim 1; L is selected from the group consisting of is Si(CH3)2, SiPh2, SiPhMe, SiMe(SiMe3), CH2, (CH2)2, (CH2)3 and C(CH3)2; R1 and R2, equal to or different from each other, are methyl, ethyl or isopropyl radicals; and R3 and R4 are hydrogen.

27. The process according to claim 24, wherein R5 and R9 are moieties of formula (III):

(IIIa)

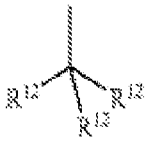


wherein R11, R12, R13, R14 and R15,

$CH2=CHT^{I}$, wherein T^{I} is a C2-C20 alkyl radical, and optionally with a non-conjugated diene to produce an ethylene resin, the ethylene resin is produced in presence of the propylene resin, wherein the amount of the propylene resin is higher than 4% and lower than 20% by weight, and the amount of the ethylene resin is higher than 80% by weight and lower than 96% by weight. 24. The process according to claim 23, wherein the catalyst system further comprises iii) an organo aluminum compound. 25. The process according to claim 24, wherein the process of polymerizing a propylene resin is carried out in presence of an additional organo aluminum compound. 26. The process according to claim 23, wherein M is titanium, zirconium or hafnium; p is 2; X is hydrogen, a halogen, or R, wherein R is defined as in claim 23; L is selected from the group consisting of is Si(CH3)2, SiPh2, SiPhMe, SiMe(SiMe3), CH2, (CH2)2, (CH2)3 and C(CH3)2; and R^{I} and R^{2} are methyl or ethyl radicals. 28. The process according to claim 23, wherein R^{5} and $R^{5'}$, equal to or different from each other, are linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements. 29. The process according to claim 28, wherein R^{5} and $R^{5'}$, equal to or different from each other, are branched C1-C40-alkyl radicals.	equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C20,-alkyl, C1-C20 cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^{I1}, R^{12}, R^{13}, R^{14} and R^{15} can join to form a 4-7 membered saturated or unsaturated membered ring, said ring can bear at least one C1-C10 alkyl substituent; 28. The process according to claim 27, wherein at least one substituent selected from the group consisting of R^{I1}, R^{12}, R^{13}, R^{14} and R^{15} is a linear or branched, saturated or unsaturated C1-C20-alkyl radical. 29. The process according to claim 24, wherein T have formula (IIa). 32. The process according to claim 20, wherein the catalyst system is supported on a porous organic polymer. 33. The process according to claim 20, wherein the process of polymerizing a propylene resin further comprises a prepolymerization step. 34. The process according to claim 20, wherein the process of polymerizing a propylene resin is carried out in presence of hydrogen. 35. The process according to claim 20, wherein the propylene resin comprises from 30% to 70% by weight of a propylene homopolymer or propylene copolymer containing up to 20% by mol of ethylene or one or more alpha olefins of formula CH,=CHT1.

30. The process according to claim 29, wherein R^s and $R^{5'}$ have formula (III) :

(III)



wherein $R^{12,}$ equal to or different from each other, is a C1-C10 alkyl radical.

32. The process according to claim 23, wherein T have formula (IIa) and R^9 is a C1-C20 alkyl radical.

34. The process according to claim 23, wherein T have formula (IIa) and R^9 is hydrogen.

37. The process according to claim 23, wherein the inert carrier is a porous organic polymer.

38. The process according to claim 23, wherein the process of polymerizing a propylene resin further comprises a prepolymerization step.

39. The process according to claim 38, wherein the catalyst system is prepolymerized.

40. The process according to claim 23, wherein the process is carried out in presence of hydrogen.

41. The process according to claim 23, wherein the propylene resin produced comprises from 10% to 18% by weight of a propylene homopolymer or propylene copolymer containing up to 20% by mol of ethylene or one or more alpha olefins of formula CH2=CHT$^{l.}$

42. The process according to claim 23,

36. The process according to claim 20, wherein the ethylene resin comprises from 30% to 70% by weight of an ethylene copolymer having from 4% by mol to 60% by mol of comonomers of formula CH,=CHT1, and optionally up to 20% by mol of a non conjugated diene.

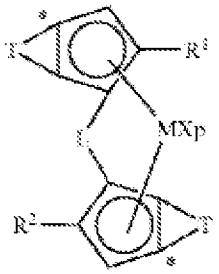
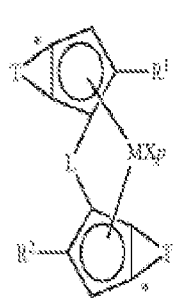
37. The process according to claim 20, wherein the propylene resin comprises a propylene homopolymer.

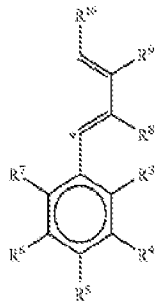
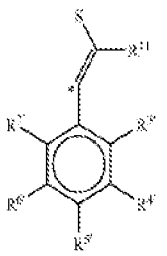
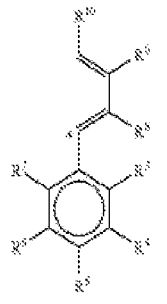
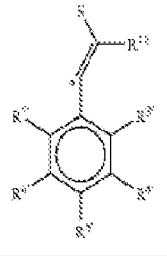
38. The process according to claim 20, wherein the ethylene resin comprises an ethylene 1-butene copolymer.

wherein the ethylene resin produced comprises from 82% to 90% by weight of an ethylene copolymer having from 3% by mol to 60% by mol of derived units of comonomers of formula $CH2=CHT^{l}$ and optionally up to 20% by mol of a non conjugated diene. 43. The process according to claim 23, wherein the propylene resin is a propylene homopolymer. 44. The process according to claim 23, wherein the ethylene resin is an ethylene 1-butene copolymer having a 1-butene content ranging from 5% to 45% by mol.	

35. Claim 23-26, 28-30, 32, 34, and 37- 44 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 21-24, 28, 30, and 33-40 of copending Application No. 10/571,389. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to substantially the same process using the same catalyst system. While the copending application claims different ranges of propylene and ethylene from the instant invention, it would have been obvious to one of ordinary skill in the art to include because the ranges overlap and do not make the composition of the resulting resin patentably distinct.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Application 10/571403	Copending Application 10/572,389
23. A multistage process comprising the following steps: - polymerizing a propylene resin optionally comprising one or more monomers selected from ethylene and alpha olefins of formula CH2=CHT^{l,} wherein T^{l} is a C2-C20 alkyl radical in presence of a catalyst system, the catalyst system supported on an inert carrier comprising: i) at least one metallocene compound of formula (I) :  wherein: M is a transition metal selected from those belonging to group 3, 4, 5, 6 or to a lanthanide or actinide group in the Periodic Table of the Elements; p is an integer from 0 to 3, wherein p is equal to a formal oxidation state of M minus 2; X, same or different, is hydrogen, a halogen, or R, OR, OSO2CF3, OCOR, SR, NR2 or PR2, wherein R is a linear or branched, saturated or unsaturated CI-C20 alkyl, C3-C20 cycloalkyl, C6-C20 aryl, C7-C20 alkylaryl or C7-C20 arylalkyl radical, containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two X can optionally form a substituted or unsubstituted butadienyl radical or OR'O wherein R° is a divalent radical	21. A multistage process comprising the following steps: - polymerizing a propylene resin and optionally one or more monomers selected from ethylene or alpha olefins of formula CH2=CHT^{l}, wherein T^{l} is a C2-C20 alkyl radical in presence of a catalyst system, the catalyst system supported on an inert carrier, comprising: i) at least one metallocene compound of formula (I) :  wherein M is a transition metal selected from those belonging to group 3, 4, 5, 6 or to a lanthanide or actinide group in the Periodic Table of the Elements; p is an integer from 0 to 3, wherein p is equal to a formal oxidation state of M minus 2; X, same or different, is hydrogen, a halogen, or R, OR, OSO2CF3, OCOR, SR, NR2 or PR2, wherein R is a linear or branched, saturated or unsaturated C1-C20 alkyl, C3-C20 cycloalkyl, C6-C20 aryl, C7-C20 alkylaryl or C7-C20 arylalkyl radical, optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two X can optionally form a substituted or

selected from C1-C2o alkylidene, C6-C4o arylidene, C7-C40 alkylarylidene and C7-C40 arylalkylidene radicals; L is a divalent bridging group selected from C1-C20 alkylidene, C3-C20 cycloalkylidene, C6-C20 arylidene, C7-C20 alkylarylidene, or C7-C20 arylalkylidene radicals optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements, and silylidene radical containing up to 5 silicon atoms; RI and R2, equal to or different from each other, are linear or branched, saturated or unsaturated C1-C20-alkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; T, equal to or different from each other, is a moiety of formula (IIa) or (IIb): (IIa)  (IIb)  optionally wherein the atom marked with	unsubstituted butadienyl radical or OR'O, wherein R' is a divalent radical selected from C1-C20 alkylidene, C6-C40 arylidene, C7-C40 alkylarylidene and C7-C40 arylalkylidene radicals; L is a divalent bridging group selected from CI-C20 alkylidene, C3-C2o cycloalkylidene, C6-C20 arylidene, C7-C20 alkylarylidene, or C7-C20 arylalkylidene radicals optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements, and silylidene radical containing up to 5 silicon atoms; RI and R2, equal to or different from each other, are linear or branched, saturated or unsaturated C1-C20-alkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; T, equal to or different from each other, is a moiety of formula (IIa) or (IIb) : (IIa)  (IIb) 

symbol * bonds the atom marked with the same symbol in the metallocene compound of formula (I);	wherein the atom marked with symbol * bonds the atom marked with the same symbol in the metallocene compound of formula (I) ;
R^3, R^4, R^5, R^6 and R^7, equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C40-alkyl, C3-40-cycloalkyl, C6-C40-aryl, C7-C40-alkylarl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^3, R^4, R^5, R^6 and R^7 can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1-C20 alkyl substituent;	R^3, R^4, R^5, R^6 and R^7, equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40- alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^3, R^4, R^5, R^6 and R^7 can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one CI-C20 alkyl substituent;
with the proviso that at least one substituent selected from the group consisting of R^3, R^4, R^5, R^6 and R^7 is a linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radical optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements;	with the proviso that at least one substituent selected from the group consisting of R^3, R^4, R^5, R^6 and R^7 is of formula (III): 
R^8, R^9 and R^{10}, equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^8, R^9 and R^{10} can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one CI-CI0 alkyl substituent;	wherein R^{12}, equal to or different from each other, is a C1-C10 alkyl radical;
R^{11} is hydrogen or a linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20-arylalkyl radicals, optionally	R^8, R^9 and R^{10}, equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40- cycloalkyl, C6-C20-aryl, C7-C20- alkylaryl, or C7-C20-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^8, R^9 and R^{10}

containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; $R^{3'}$, $R^{4'}$, $R^{5'}$, $R^{6'}$ and $R^{7'}$ equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more $R^{3'}$ $R^{4'}$ $R^{5'}$ $R^{6'}$ and $R^{7'}$ can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1-C10 alkyl substituent; ii) an alumoxane or a compound capable of forming an alkyl metallocene cation; - contacting under polymerization conditions in a gas phase, ethylene with one or more alpha olefins of formula CH2=CHT^{l} , wherein T^{l} is a C2-C20 alkyl radical, and optionally with a non-conjugated diene to produce an ethylene resin, the ethylene resin is produced in presence of the propylene resin, wherein the amount of the propylene resin is higher than 4% and lower than 20% by weight, and the amount of the ethylene resin is higher than 80% by weight and lower than 96% by weight. 24. The process according to claim 23, wherein the catalyst system further comprises iii) an organo aluminum compound. 25. The process according to claim 24, wherein the process of polymerizing a propylene resin is carried out in presence of an additional organo aluminum compound. 26. The process according to claim 23, wherein M is titanium, zirconium or hafnium; p is 2; X is hydrogen, a halogen, or R, wherein R is defined as in claim 23; L is selected from the	can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1-CI0 alkyl substituent; R^{11} is hydrogen or a linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7- C20- arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; $R^{3'}$, $R^{4'}$, $R^{5'}$, $R^{6'}$ and $R^{7'}$ equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated Ci-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, CT-C40-alkylaryl, or *CT-C4o-arylalkyl* radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R3' R4' Rs' R6'and RT'can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1-C20 alkyl substituent; ii) an alumoxane or a compound capable of forming an alkyl metallocene cation; contacting under polymerization conditions in a gas phase, ethylene with one or more alpha olefins of formula CH2=CHT^{l}, wherein T^{l} is a C2-C20 alkyl radical, and optionally with a non-conjugated diene, to produce an ethylene resin, the ethylene resin is produced in presence of the propylene resin, wherein the amount of the propylene resin ranges from 5% by weight to 90% by weight, and the amount of the ethylene resin ranges from 10% by weight to 95% by weight.

group consisting of is Si(CH3)2, SiPh2, SiPhMe, SiMe(SiMe3), CH2, (CH2)2, (CH2)3 and C(CH3)2; and R^1 and R^2 are methyl or ethyl radicals.

28. The process according to claim 23, wherein R^5 and $R^{5'}$ equal to or different from each other, are linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements.

29. The process according to claim 28, wherein R^5 and $R^{5'}$ equal to or different from each other, are branched C1-C40-alkyl radicals.

30. The process according to claim 29, wherein R^s and $R^{5'}$ have formula (III) :

(III)

wherein R^{12} equal to or different from each other, is a C1-C10 alkyl radical.

32. The process according to claim 23, wherein T have formula (IIa) and R^9 is a C1-C20 alkyl radical.

34. The process according to claim 23, wherein T have formula (IIa) and R^9 is hydrogen.

37. The process according to claim 23, wherein the inert carrier is a porous organic polymer.

38. The process according to claim 23, wherein the process of polymerizing a propylene resin further comprises a prepolymerization step.

39. The process according to claim 38, wherein the catalyst system is prepolymerized.

22. The process according to claim 21, wherein the catalyst system further comprises iii) an organo aluminum compound.

23. The process according to claim 22, wherein the process of polymerizing a propylene resin is carried out in presence of an additional organo aluminum compound.

24. The process according to claim 21, wherein M is titanium, zirconium or hafnium; p is 2; X is hydrogen, a halogen, or R, wherein R is defined in claim i; L is selected from the group consisting of is Si(CH3)2, SiPh2, SiPhMe, SiMe(SiMe3), CH2, (CH2)2, (CH2)3 and C(CH3)2; and RI and R2 are
methyl or ethyl radicals.

28. The process according to claim 21, wherein T have formula (IIa) and R9 is a C1-C20 alkyl radical.

30. The process according to claim 21, wherein T have formula (IIa) and R9 is hydrogen.

33. The process according to claim 21, wherein the catalyst system is supported on an organic polymeric support.

34. The process according to claim 21, wherein the process of polymerizing a propylene resin further comprises a prepolymerization step.

35. The process according to claim 21, wherein the process of polymerizing a propylene resin is carried out in presence of hydrogen.

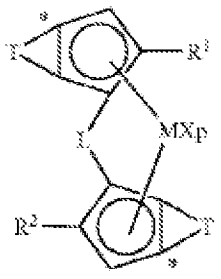
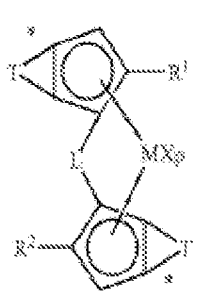
36. The process according to claim 21, wherein the process of polymerizing an ethylene resin is carried out in presence

40. The process according to claim 23, wherein the process is carried out in presence of hydrogen. 41. The process according to claim 23, wherein the propylene resin produced comprises from 10% to 18% by weight of a propylene homopolymer or propylene copolymer containing up to 20% by mol of ethylene or one or more alpha olefins of formula $CH2=CHT^{l.}$ 42. The process according to claim 23, wherein the ethylene resin produced comprises from 82% to 90% by weight of an ethylene copolymer having from 3% by mol to 60% by mol of derived units of comonomers of formula $CH2=CHT^{l}$ and optionally up to 20% by mol of a non conjugated diene. 43. The process according to claim 23, wherein the propylene resin is a propylene homopolymer. 44. The process according to claim 23, wherein the ethylene resin is an ethylene 1-butene copolymer having a 1-butene content ranging from 5% to 45% by mol.	of hydrogen. 37. The process according to claim 21, wherein the propylene resin produced comprises from 30% to 70% by weight of a propylene homopolymer or propylene copolymer containing up to 20% by mol of ethylene or one or more alpha olefins of formula $CH2=CHT^{1}$. 38. The process according to claim 21 wherein the ethylene resin produced comprises from 30% to 70% by weight of an ethylene copolymer having from 4% by mol to 60% by mol of comonomers of formula CH2=CHTI and optionally up to 20% by mol of a non conjugated diene. 39. The process according to claim 21, wherein the propylene resin is a propylene homopolymer. 40. The process according to claim 21, wherein the ethylene resin is an ethylene l-butene copolymer.

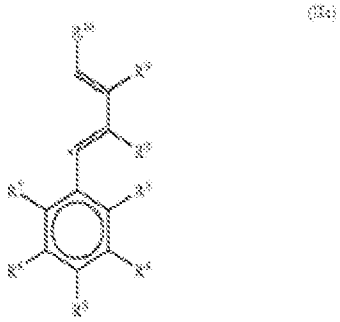
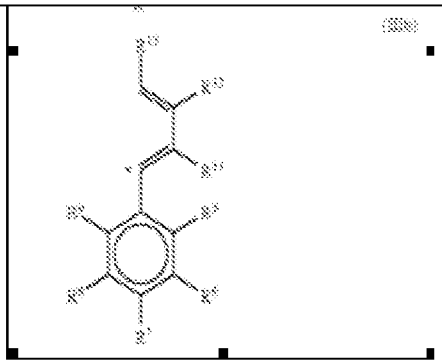
36. Claim 23-26, 28-30, 32, 34, and 37- 44 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 18-25, 27, and 31-35 of copending Application No. 10/571,404. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to substantially the same process using the same catalyst system. While the copending application limits the porosity of the organic polymer used as an inert carrier, the instant application broadly sets forth that the porosity of the

organic polymer would have been obvious to increase or decrease depending on the desired properties achieved.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Application 10/571403	Copending Application 10/571,404
23. A multistage process comprising the following steps: - polymerizing a propylene resin optionally comprising one or more monomers selected from ethylene and alpha olefins of formula CH2=CHT^{I,} wherein T^{I} is a C2-C20 alkyl radical in presence of a catalyst system, the catalyst system supported on an inert carrier comprising: i) at least one metallocene compound of formula (I) :  wherein: M is a transition metal selected from those belonging to group 3, 4, 5, 6 or to a lanthanide or actinide group in the Periodic Table of the Elements; p is an integer from 0 to 3, wherein p is	18. A multistage process comprising the following steps: - polymerizing a propylene resin optionally comprising one or more monomers selected from ethylene and alpha olefins of formula CH2=CHTI, wherein TI is a C2-C20 alkyl radical in presence of a catalyst system, the catalyst system supported on a porous organic polymer, comprising: i) at least one metallocene compound of formula (I):  wherein M is a transition metal selected from those belonging to group 3, 4, 5, 6 or to a lanthanide or actinide group in the Periodic Table of the Elements; p is an integer from 0 to 3, wherein p is

equal to a formal oxidation state of M minus 2;	equal to a formal oxidation state of M minus 2;
X, same or different, is hydrogen, a halogen, or R, OR, OSO2CF3, OCOR, SR, NR2 or PR2, wherein R is a linear or branched, saturated or unsaturated CI-C20 alkyl, C3-C20 cycloalkyl, C6-C20 aryl, C7-C20 alkylaryl or C7-C20 arylalkyl radical, containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two X can optionally form a substituted or unsubstituted butadienyl radical or OR'O wherein R° is a divalent radical selected from C1-C2o alkylidene, C6-C4o arylidene, C7-C40 alkylarylidene and C7-C40 arylalkylidene radicals;	X, same or different, is hydrogen, a halogen, or R, OR, OSO2CF3, OCOR, SR, NR2 or PR2, wherein R is a linear or branched, saturated or unsaturated C1-C20 alkyl, C3-C20 cycloalkyl, C6-C20 aryl, C7-C20 alkylaryl or C7-C20 arylalkyl radical, optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two X can optionally form a substituted or unsubstituted butadienyl radical or OR'O, wherein R' is a divalent radical selected from C1-C20 alkylidene, C6-C40 arylidene, C7-C40 alkylarylidene and C7-C40 arylalkylidene radicals;
L is a divalent bridging group selected from C1-C20 alkylidene, C3-C20 cycloalkylidene, C6-C20 arylidene, C7-C20 alkylarylidene, or C7-C20 arylalkylidene radicals optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements, and silylidene radical containing up to 5 silicon atoms;	L is a divalent bridging group selected from C1-C20 alkylidene, C3-C20 cycloalkylidene, C6-C20 arylidene, C7-C20 alkylarylidene, or C7-C20 arylalkylidene radicals optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements, and silylidene radical containing up to 5 silicon atoms;
RI and R2, equal to or different from each other, are linear or branched, saturated or unsaturated C1-C20-alkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements;	R1, is a linear or branched, saturated or unsaturated C1-C40-alkyl radical, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; R2 is a branched C1-C40-alkyl radical;
T, equal to or different from each other, is a moiety of formula (IIa):	T, equal to or different from each other, is a moiety of formula (IIIb) :

	
optionally wherein the atom marked with symbol * bonds the atom marked with the same symbol in the metallocene compound of formula (I);	wherein:
	the atom marked with symbol * is bonded to the atom marked with the same symbol in the metallocene compound of formula (I);
R^3, R^4, R^s, R^6 and R^7, equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C40-alkyl, C3-40-cycloalkyl, C6-C40-aryl, C7-C40-alkylarl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^3, R^4, R^s, R^6 and R^7 can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1-C20 alkyl substituent;	R^5, R^6, R^7, R^8 and R^9, equal to or different from each other, are hydrogen or a linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^5, R^6, R^7, R^8 and R^9 can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1- C20 alkyl substituent;
with the proviso that at least one substituent selected from the group consisting of R^3, R^4, R^5, R^6 and R^7 is a linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radical optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements;	R^{l0} is hydrogen or a linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or CT-C20-arylalkyl radical, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements;
R^8, R^9 and R^{l0}, equal to or different from	R^{11}, R^{12} and R^{13}, equal to or different from each other, are hydrogen or a linear or branched, saturated or unsaturated Ci-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of

each other, are hydrogen or linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more $R^{8,}$ R^{9} and R^{l0} can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one CI-CI0 alkyl substituent;

R^{11} is hydrogen or a linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements;

$R^{3',}$ $R^{4',}$ $R^{5',}$ $R^{6'}$ and $R^{7'}$ equal to or different from each other, are hydrogen or linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more $R^{3'}$ $R^{4'}$ $R^{5'}$ $R^{6'}$ and $R^{7'}$ can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one C1-C10 alkyl substituent;

ii) an alumoxane or a compound capable of forming an alkyl metallocene cation;

- contacting under polymerization conditions in a gas phase, ethylene with one or more alpha olefins of formula $CH2=CHT^{l}$, wherein T^{l} is a C2-C20 alkyl radical, and optionally with a non-conjugated diene to produce an ethylene resin, the ethylene resin is produced in the Periodic Table of the Elements; or two or more R^{11}, R^{12} and R^{13} can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one CI-C20 alkyl substituent;

ii) an alumoxane or a compound capable of forming an alkyl metallocene cation;

- contacting under polymerization conditions in a gas phase, ethylene with one or more alpha olefins of formula CH2=CHT2, wherein T2 is a CI-C20 alkyl radical, and optionally with a non-conjugated diene, in presence of the propylene resin.

19. The multistage process according to claim 18, wherein the catalyst system further comprises iii) an organo aluminum compound.

20. The multistage process according to claim 18, wherein the process of polymerizing a propylene resin is carried out in presence of an additional organo aluminum compound.

21. The multistage process according to claim 18, wherein M is titanium, zirconium or hafnium; X is hydrogen, a halogen, or R, wherein R is a linear or branched, saturated or unsaturated C1-C20 alkyl, C3-C20 cycloalkyl, C6-C20 aryl, C7-C20 alkylaryl or C7-C20 arylalkyl radical, optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; and L is selected from Si(Me)2, SiPh2, SiPhMe, SiMe(SiMe3), CH2, (CH2)2, (CH2)3 and C(CH3)2.

22. The multistage process according to claim 18, wherein RI is a methyl or ethyl radical; R2 is a group of formula (II) :

presence of the propylene resin, wherein the amount of the propylene resin is higher than 4% and lower than 20% by weight, and the amount of the ethylene resin is higher than 80% by weight and lower than 96% by weight.

24. The process according to claim 23, wherein the catalyst system further comprises iii) an organo aluminum compound.

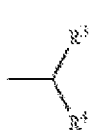
25. The process according to claim 24, wherein the process of polymerizing a propylene resin is carried out in presence of an additional organo aluminum compound.

26. The process according to claim 23, wherein M is titanium, zirconium or hafnium; p is 2; X is hydrogen, a halogen, or R, wherein R is defined as in claim 23; L is selected from the group consisting of is Si(CH3)2, SiPh2, SiPhMe, SiMe(SiMe3), CH2, (CH2)2, (CH2)3 and C(CH3)2; and R^1 and R^2 are methyl or ethyl radicals.

28. The process according to claim 23, wherein R^5 and $R^{5'}$, equal to or different from each other, are linear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements.

29. The process according to claim 28, wherein R^5 and $R^{5'}$, equal to or different from each other, are branched C1-C40-alkyl radicals.

30. The process according to claim 29, wherein R^s and $R^{5'}$ have formula (III) :



wherein R^3 and R^4, equal to or different from each other, are linear or branched, saturated or unsaturated C1-C10-alkyl radicals optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; and R^{l0} is a hydrogen atom or a linear or branched, saturated C1-C20-alkyl radical.

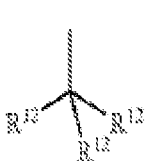
23. The multistage process according to claim 18, wherein R^5, R^6, R^8 and R^9, are hydrogen, and R^7 is a group of formula -C(R14)3, wherein R^{14}, equal to or different from each other, are a linear or branched, saturated or unsaturated C1-C10-alkyl, C3-C10-cycloalkyl, C6-10-aryl, C7-C10-alkylaryl, or C7-C10-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements.

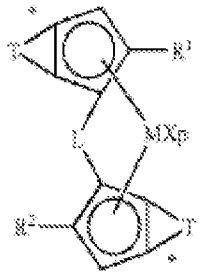
24. The multistage process according to claim 23, wherein T have formula (IIIb).

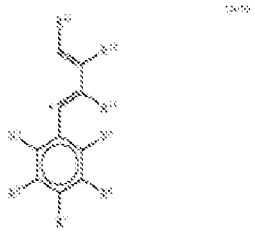
25. The multistage process according to claim 24, wherein one T, R^{12} is a C1-C20 alkyl radical, and in the other T, R^{12} is hydrogen.

27. The multistage process according to claim 23, wherein T have formula (IIIb), and R^{11}, R^{12} and R^{13} are hydrogen.

31. The multistage process according to claim 18, wherein the propylene resin comprises from 5% to 90% by weight of a propylene homopolymer or a propylene copolymer comprising up to 20% by mol of one or more alpha olefins of formula

 (III) wherein $R^{12,}$ equal to or different from each other, is a C1-C10 alkyl radical. 32. The process according to claim 23, wherein T have formula (IIa) and R^9 is a C1-C20 alkyl radical. 34. The process according to claim 23, wherein T have formula (IIa) and R^9 is hydrogen. 37. The process according to claim 23, wherein the inert carrier is a porous organic polymer. 38. The process according to claim 23, wherein the process of polymerizing a propylene resin further comprises a prepolymerization step. 39. The process according to claim 38, wherein the catalyst system is prepolymerized. 40. The process according to claim 23, wherein the process is carried out in presence of hydrogen. 41. The process according to claim 23, wherein the propylene resin produced comprises from 10% to 18% by weight of a propylene homopolymer or propylene copolymer containing up to 20% by mol of ethylene or one or more alpha olefins of formula $CH2=CHT^{l.}$ 42. The process according to claim 23, wherein the ethylene resin produced comprises from 82% to 90% by weight of an ethylene copolymer having from 3%	CH2=CHTI, wherein TI is a C2-C20 alkyl radical, and from 10 to 95% by weight, of an ethylene copolymer comprising from 5% to 90% by mol of one or more alpha olefins of formula CH2=CHT2, wherein T2 is a CI-C20 alkyl radical. 32. The multistage process according to claim 31, wherein the ethylene copolymer comprises up to 20% by mol of a non conjugated diene. 33. The multistage process according to claim 31, wherein the propylene resin is a propylene homopolymer. 34. The multistage process according to claim 31, wherein the alpha olefins are selected from propylene and 1-butene. 35. A propylene polymer composition comprising: a) 5% to 90% by weight of a propylene homopolymer or a propylene copolymer containing up to 20% by mol of derived units of one or more alpha olefins of formula CH2=CHTI wherein TI is a C2-C20 alkyl radical; the propylene homopolymer or propylene copolymer having isotactic pentads (mmmm) higher than 90%; b) from 10 to 95% by weight of an ethylene copolymer containing from 5% to 90% by mol of one or more alpha olefins of formula CH2=CHT2, wherein T2 is a CI-C20 alkyl radical; wherein the propylene polymer composition has a flowability index equal to or lower than 2, and the propylene polymer composition is produced by the following steps: - polymerizing a propylene resin optionally comprising one or more monomers selected from ethylene and alpha olefins of formula CH2=CHTI, wherein TI is a C2-C20 alkyl radical in presence of a catalyst system, the

by mol to 60% by mol of derived units of comonomers of formula $CH2=CHT^{I}$ and optionally up to 20% by mol of a non conjugated diene. 43. The process according to claim 23, wherein the propylene resin is a propylene homopolymer. 44. The process according to claim 23, wherein the ethylene resin is an ethylene 1-butene copolymer having a 1-butene content ranging from 5% to 45% by mol.	catalyst system supported on a porous organic polymer, comprising : ii) at least one metallocene compound of formula (I):  wherein M is a transition metal selected from those belonging to group 3, 4, 5, 6 or to a lanthanide or actinide group in the Periodic Table of the Elements; p is an integer from 0 to 3, wherein p is equal to a formal oxidation state of M minus 2; X, same or different, is hydrogen, a halogen, or R, OR, OSO2CF3, OCOR, SR, NR2 or PR2, wherein R is a linear or branched, saturated or unsaturated C1-C20 alkyl, C3-C20 cycloalkyl, C6-C20 aryl, C7-C20 alkylaryl or C7-C20 arylalkyl radical, optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two X can optionally form a substituted or unsubstituted butadienyl radical or OR'O, wherein R' is a divalent radical selected from C1-C20 alkylidene, C6-C40 arylidene, C7-C40 alkylarylidene and C7-C40 arylalkylidene radicals; L is a divalent bridging group selected from C1-C20 alkylidene, C3-C20 cycloalkylidene, C6-C20 arylidene, C7-C20 alkylarylidene, or C7-C20 arylalkylidene radicals optionally containing heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements,

	and silylidene radical containing up to 5 silicon atoms; RI , is a linear or branched, saturated or unsaturated C1-C40-alkyl radical, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; R2 is a branched C1-C40-alkyl radical; T, equal to or different from each other, is a moiety of formula (IIIb) :  wherein: the atom marked with symbol * is bonded to the atom marked with the same symbol in the metallocene compound of formula (I); R^5, R^6, R^7, R^8 and R^9, equal to or different from each other, are hydrogen or a llnear or branched, saturated or unsaturated C1-C40-alkyl, C3-C40-cycloalkyl, C6-C40-aryl, C7-C40-alkylaryl, or C7-C40-arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^5, R^6, R^7, R^8 and R^9 can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one CI-C20 alkyl substituent; R^{10} is hydrogen or a linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20-arylalkyl radical, optionally containing one or more

	heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; R^{11}, R^{12} and R^{13}, equal to or different from each other, are hydrogen or a linear or branched, saturated or unsaturated C1-C20-alkyl, C3-C20-cycloalkyl, C6-C20-aryl, C7-C20-alkylaryl, or C7-C20 arylalkyl radicals, optionally containing one or more heteroatoms belonging to groups 13-17 of the Periodic Table of the Elements; or two or more R^{11}, R^{12} and R^{13} can join to form a 4-7 membered saturated or unsaturated ring, said ring can bear at least one CI-C20 alkyl substituent; ii) an alumoxane or a compound capable of forming an alkyl metallocene cation; contacting under polymerization conditions in a gas phase, ethylene with one or more alpha olefins of formula CH2=CHT2 , wherein T2 is a CI-C20 alkyl radical, and optionally with a non-conjugated diene, in presence of the propylene resin.

Conclusion

37. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Eng whose telephone number is (571) 270-7743. The examiner can normally be reached on Mon-Thurs from 9:00 am 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Angela Ortiz can be reached at (571) 272-1206. The fax phone number for the organization where this application or proceeding is assigned is (571) 270-8743.

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